

Data Validation Report

Project: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling
 Portland Harbor Superfund Site
 Surface Sediment – Downtown/Upriver Reaches

Laboratory: ALS Environmental, Kelso, WA

Laboratory Group: K1808219

Analyses/Method: Chlorinated Pesticides and Total Solids

Validation Level: Stage 2A

AECOM Project

Number: 60566335 Task #2.12

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File Name: K1808219 DVR

SUMMARY

The data quality review of 1 surface sediment sample collected on August 28, 2018, has been completed. The sample was analyzed for chlorinated pesticides by EPA Method 1699-modified (GC/MS/MS) and total solids by EPA Method 160.3-modified at ALS Environmental (ALS) located in Kelso, Washington. The analyses were performed in general accordance with the methods specified in EPA's *Method 1699: Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS*, December 2007 (modified by ALS SOP SVM-PESTMS2) and *Methods for Chemical Analysis of Water and Wastes*, March 1983. The laboratory provided level 2 and level 4 data packages containing sample results and associated quality assurance (QA) and quality control (QC) data, preparation logs, and raw instrument outputs (where applicable). The following sample was associated with laboratory group K1808219:

Sample ID	Laboratory ID
PDI-SG-B478	K1808219-001

Data validation is based on method performance criteria and QC criteria documented in the *Quality Assurance Project Plan (QAPP)*, dated March 23, 2018, as amended. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA documents *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017, and *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review*, January 2017. Data qualifiers assigned to results reported in this sample set are included in Table 1.

SAMPLE RECEIPT

Upon receipt by ALS, the sample jar information was compared to the chain-of-custody (COC) and the cooler temperature was recorded. The cooler was received at a temperature within the EPA-recommended limits of greater than 0°C and less than or equal to 6°C. The laboratory noted that the sample collection date noted on the COC (July 28, 2018) for PDI-SG-B478 did not match the date on the sample label (August 28, 2018). AECOM confirmed that the sample collection date was August 28, 2018, and the laboratory logged the sample with the correct date. The sample was received by the laboratory on August 29, 2018, and placed on frozen hold. The sample was authorized for analysis on September 18, 2018.

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ORGANIC ANALYSIS

The sample was analyzed for chlorinated pesticides by EPA Method 1699-modified.

1. Holding Times – Acceptable

Sample PDI-SG-B478 was extracted 13 days past the method-recommended holding time of 14 days. As describe above, the sample was frozen in archive until extraction and was thawed for less than 14 days; therefore, the sample was not extracted outside the holding time.

2. Initial and Continuing Calibration Verifications – Acceptable

3. Blanks – Acceptable

A rinsate blank was not submitted with this laboratory group. The associated rinsate blank was reported under separate cover. Target compounds may have been detected in the rinsate blank associated with these samples. Data were not qualified based on rinsate blank results.

4. Surrogates – Acceptable

5. Internal Standards – Acceptable

6. Laboratory Control Sample (LCS) – Acceptable

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable

An MS/MSD was performed using PDI-SG-B478. Results were acceptable.

8. Reporting Limits – Acceptable except as noted below:

The results for 4,4'-DDD and oxychlordan in PDI-SG B478 were flagged 'J' by the laboratory to indicate the reported concentrations were above the method detection limits (MDLs) but below the reporting limits. Laboratory 'J'-flagged results are considered estimated. As the result is between the MDL and the reporting limit, there is a greater level of uncertainty associated with the numerical result.

The reporting limits for the chlorinated pesticides reported as not detected in this sediment sample were elevated due to the moisture content and/or extraction volume used due to matrix interference. The reporting limit and MDL for dieldrin exceeded the cleanup level in PDI-SG-B478.

CONVENTIONAL ANALYSIS

The sample was analyzed for total solids by EPA Method 160.3-modified.

1. Holding Times – Acceptable



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2. Laboratory Duplicate – Acceptable

A laboratory duplicate was performed using PDI-SG-B478 and a sample from a project unrelated to the Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling project. Results were comparable.

3. Reporting Limits – Acceptable

OVERALL ASSESSMENT OF DATA

The data reported in this laboratory group is considered usable for meeting project objectives. The completeness for laboratory group K1808219 is 100%.

Table 1
QA/QC Data Summary Review
Portland Harbor
Surface Sediment - Downtown/Upriver Reaches
ALS - Kelso Laboratory Group: K1808219

Sample ID	Laboratory ID	Method	Analyte	Laboratory Result	Units	Final Result	Reason Code
No data qualifiers were assigned to results reported in K1808219 based on this data validation.							